

LISTING STATEMENT No. 1577

LISTED JUNE 7, 1950

3,600,000 shares \$1.00 par value

Ticker abbreviation BLD

Dial ticker number 316

Post section 5.2

THE TORONTO STOCK EXCHANGE

LISTING STATEMENT**BULLDOG YELLOWKNIFE GOLD MINES LIMITED**

Incorporated by Letters Patent on the 5th day of December, 1947, pursuant to the Companies Act (Ontario) including Part XI

1. Address of the Company's Head Office and of any other offices:

Suite 302, 184 Bay Street, Toronto, Ontario

2. Officers of the Company:

| OFFICE HELD | NAME | ADDRESS | OCCUPATION |
|---------------------|------------------|-----------------------------|----------------------|
| President | J. Gregory Smith | St. Albans, Vermont, U.S.A. | Industrialist |
| Secretary-Treasurer | George Scott | 53 Oriole Gardens, Toronto | Chartered Accountant |

3. Directors of the Company:

| NAME | ADDRESS | OCCUPATION |
|-------------------|--|---------------------------|
| J. Gregory Smith | St. Albans, Vermont, U.S.A. | Industrialist |
| Stanley Langley | 71 Braemar Road, Toronto, Ontario | Technical Engineer |
| Joseph M. Mulford | Landmark Road, Middleburg, Va., U.S.A. | Breeder of Hunting Horses |
| T. Reed Vreeland | Rm. 701, 608 Fifth Ave., New York 20, U.S.A. | Corporation Executive |
| Charles S. Payson | 30 Rockefeller Plaza, New York 20, U.S.A. | Industrialist |

4. Amount of authorized capital: \$3,600,000.00.

5. Number of shares and par value: 3,600,000 of \$1.00 each.

6. Full details of all shares issued in payment for properties or for any other assets other than cash:

| Date | No. of Shares | Consideration |
|--------------------|---------------|---|
| Nov. 20, 1947..... | 900,000 | 36 claims situated in the Yellowknife Mining Division, N.W.T. (JEJA, REP and MAD groups). |
| July, 1949..... | 100,000 | 18 claims situated in the Yellowknife Mining Division, N.W.T. (WIN group). |
| Total..... | 1,000,000 | |

7. Number of shares sold for cash..... 1,874,010

8. Total number of shares issued..... 2,874,010

9. Number of shares now in treasury or otherwise unissued: 725,990.

This listing statement is a copy of the listing application made by the applicant company. The Exchange has received no consideration in connection with the issue of this listing statement other than the customary listing fee. The papers and exhibits submitted by the applicant company in support of the listing application are open for inspection at the general office of the Exchange.

| 10 Full details of all shares sold for cash. | <table><tr><th>Date</th><th>Number of Shares</th><th>Price per Share</th><th>Amount realized by Company</th></tr><tr><td></td><td>10</td><td>\$1.00</td><td>\$ 10.00</td></tr><tr><td></td><td>650,000</td><td>.10</td><td>65,000.00</td></tr><tr><td></td><td>600,000</td><td>.13$\frac{1}{3}$</td><td>80,000.00</td></tr><tr><td></td><td>75,000</td><td>.20</td><td>14,984.00</td></tr><tr><td></td><td>35,000</td><td>.20$\frac{5}{8}$</td><td>7,029.31</td></tr><tr><td></td><td>14,000</td><td>.28</td><td>3,807.16</td></tr><tr><td></td><td>500,000</td><td>.30</td><td>150,000.00</td></tr><tr><td></td><td>Total.....</td><td>1,874,010</td><td>\$320,830.47</td></tr></table> | Date | Number of Shares | Price per Share | Amount realized by Company | | 10 | \$1.00 | \$ 10.00 | | 650,000 | .10 | 65,000.00 | | 600,000 | .13 $\frac{1}{3}$ | 80,000.00 | | 75,000 | .20 | 14,984.00 | | 35,000 | .20 $\frac{5}{8}$ | 7,029.31 | | 14,000 | .28 | 3,807.16 | | 500,000 | .30 | 150,000.00 | | Total..... | 1,874,010 | \$320,830.47 |
|---|--|-------------------|----------------------------|-----------------|----------------------------|--|----|--------|----------|--|---------|-----|-----------|--|---------|-------------------|-----------|--|--------|-----|-----------|--|--------|-------------------|----------|--|--------|-----|----------|--|---------|-----|------------|--|------------|-----------|--------------|
| Date | Number of Shares | Price per Share | Amount realized by Company | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 10 | \$1.00 | \$ 10.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 650,000 | .10 | 65,000.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 600,000 | .13 $\frac{1}{3}$ | 80,000.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 75,000 | .20 | 14,984.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 35,000 | .20 $\frac{5}{8}$ | 7,029.31 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 14,000 | .28 | 3,807.16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 500,000 | .30 | 150,000.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Total..... | 1,874,010 | \$320,830.47 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11. Particulars of any issued shares held in trust for the Company or donated for treasury purposes. | None. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12. Date of last annual meeting. | 31st May, 1949. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13. Date of last report to shareholders. | 31st December, 1948. Mailed May, 1949. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14. Details of any treasury shares (or shares issued subject to payment or shares held for the benefit of the treasury) now under option or the subject of any underwriting or sales agreement. If none, this to be stated. | See item "Outstanding Options on Treasury Shares" on page 7. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15. Details of any shares pooled, deposited in escrow, non-transferable or held under any syndicate agreement or control. | See item "Particulars of Shares in Escrow or Pool" on page 7. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16. Details of any registration with or approval or authority for sale granted by or any filing with a Securities Commission or corresponding Government body. | Pursuant to section 43 of The Securities Act, 1947 (Ontario), a prospectus has been filed with the Ontario Securities Commission and a receipt obtained therefor from the Registrar, which receipt is dated April 27, 1950. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17. Has any application for registration with, or approval or authority for sale by or any filing with a Securities Commission or corresponding Government body ever been refused, cancelled or revoked? If so, give particulars. | No. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18. Particulars of any bonds, debentures, notes, mortgages, charges, liens or hypothecations outstanding. | None. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | |
|---|--|
| 19. Names and addresses of all transfer agents. | The Canada Trust Company, 112 Yonge Street, Toronto 1, Ontario. |
| 20. Particulars of any fee charged upon transfers other than customary government taxes. | Pursuant to section 54, subsection (5) of The Companies Act (Ontario), the Company makes a charge of 25c for the issuance of every certificate referred to in subsection (1) of the said section. |
| 21. Names and addresses of all registrars. | The Canada Trust Company, 112 Yonge Street, Toronto 1, Ontario. |
| 22. Are any lawsuits pending against the Company or any of its properties, or are there any other circumstances which might affect the Company's position or title adversely? If so, explain fully. | No. |
| 23. Enumerate fully, giving claim or property numbers, approximate acreage, townships and mining camp or oil field: (a) Properties owned where titles vested in Company. (b) Properties leased. (c) Properties otherwise held. Give particulars of title held by the Company in each instance, (e.g. patented, unpatented, Crown granted, held under mining license, perpetual lease, etc.) | See item "List of Properties" on page 7. |
| 24. Full particulars of any royalties or other charges payable upon production from each individual property. | None. |
| 25. Describe plant and equipment on property. | The mine equipment consists of 2 oil tanks, each of a capacity of 35,000 gallons, both situate at Thomson Landing, one of which only has been erected; 4 oil tanks, each of a capacity of 8,750 gallons, also situate at Thomson Landing, two of which only have been erected and a gasoline tractor (T-6). The camp buildings consist of 4 igloo huts and 4 tent frames. The Company has stored in the oil tanks at Thomson Landing approximately 49,000 gallons of oil and a further 2,700 gallons of oil are stored in 60 oil drums at the property. |
| 26. Describe development accomplished and planned. | To date, 11,346 feet of diamond drilling has been completed and stripping and trenching has been done at intervals along the Matthews vein. The development work planned for the immediate future consists of surface diamond drilling to explore for lateral extensions of ore in the Matthews vein and to explore the volcanic sediment contact north and south of previous development work done. The development work planned for the future consists of underground development of the Matthews vein by sinking a shaft to 350 feet and by opening levels at depths of 175 feet and 325 feet. |

| | |
|--|---|
| 27. Date and author of mining engineer's or petroleum geologist's report filed with this application and available for inspection on request. | October 31st, 1949. W. P. Murdoch. |
| 28. Full particulars of production to date. | None. |
| 29. Have any dividends been paid? If so, give dates, per share rate, and amount paid in dollars on each distribution. | No. |
| 30. Name and address of the solicitor or attorney whose certificate as to titles and to the fact that there are no encumbrances or tax arrears has been filed with the Exchange. | Fasken, Robertson, Aitchison, Pickup & Calvin, 36 Toronto Street, Toronto, Ontario. |
| 31. Name and address of the solicitor or attorney whose certificate as to the legality of the incorporation and organization of the Company, the validity of its shares and the fact that they are fully paid and non-assessable has been filed with the Exchange. | Fasken, Robertson, Aitchison, Pickup & Calvin, 36 Toronto Street, Toronto, Ontario. |
| 32. Has the listing of any shares of the Company ever been refused or deferred on any stock exchange? If so, give particulars. | No. |
| 33. Have any shares of the Company ever been listed on any other stock exchange? If so, give particulars. | No. |

Dated at Toronto the 22nd day of May, 1950.



BULLDOG YELLOWKNIFE GOLD MINES LIMITED

"JAMES GREGORY SMITH," *President.*

"GEO. SCOTT," *Secretary-Treasurer.*

STATEMENT SHOWING NUMBER OF SHAREHOLDERS
as of May 9, 1950

| Number | | Shares |
|-------------------|--------------------------------|-----------|
| 22 | Holders of 1 - 100 shares..... | 1,135 |
| 114 | " " 101 - 1000 "..... | 67,907 |
| 24 | " " 1001 - 2000 "..... | 38,960 |
| 10 | " " 2001 - 3000 "..... | 27,580 |
| 6 | " " 3001 - 4000 "..... | 22,700 |
| 14 | " " 4001 - 5000 "..... | 70,000 |
| 38 | " " 5001 - up "..... | 2,645,728 |
| 228 Stockholders | | |
| Total Shares..... | | 2,874,010 |

FINANCIAL STATEMENTS

BALANCE SHEET AS AT MAY 8, 1950

ASSETS

| | | |
|---|--------------|---------------------|
| Cash in bank..... | \$ 54,825.20 | |
| Accounts receivable..... | 863.56 | \$ 55,688.76 |
| Mining Claims at cost acquired for: | | |
| 1,000,000 shares issued at..... | \$100,000.00 | |
| Assumption of liability payable in cash..... | 125,000.00 | 225,000.00 |
| Fuel oil on hand as determined and certified by the management, based on book records and valued at cost..... | \$ 16,734.85 | |
| Prepaid insurance..... | 1,326.87 | |
| Deferred development expense..... | 201,228.69 | |
| Organization expense..... | 3,290.00 | 222,580.41 |
| | | <u>\$503,269.17</u> |

LIABILITIES

| | | |
|---|-----------------------|-----------------------|
| Accounts payable and accrued charges..... | | \$ 12,438.70 |
| Liability assumed on purchase of mining claims payable \$5,000 semi-annually on July 15, 1950, to January 15, 1957..... | | 70,000.00 |
| Capital Stock (see Note 1): | | |
| Authorized—3,600,000 shares of \$1 par value..... | \$3,600,000.00 | |
| Issued—2,874,010 shares. | | |
| | Par Value | Discount |
| For cash, of which 600,000 shares were issued during the period January 1, 1950, to May 8, 1950, for \$80,000..... | \$1,874,010.00 | \$1,553,179.53 |
| For mining claims..... | 1,000,000.00 | 900,000.00 |
| | <u>\$2,874,010.00</u> | <u>\$2,453,179.53</u> |
| | | 420,830.47 |

NOTES:

- (1) The following shares have been reserved under outstanding options:
- | | |
|---|----------------|
| Expiring August 15, 1950, at 20c per share..... | 100,000 shares |
| Expiring November 15, 1950, at 25c per share..... | 200,000 shares |
| Expiring February 15, 1951, at 35c per share..... | 200,000 shares |
| Expiring May 15, 1951, at 60c per share..... | 100,000 shares |
| Expiring August 15, 1951, at 80c per share and contingent upon the optionee not exercising the option claimed by it upon 120,000 shares (see note 2)..... | 100,000 shares |
- (2) There are outstanding at May 8, 1950, an option to issue 120,000 shares, as follows:
- | | |
|--|-----------------------|
| Expiring July 10, 1950, at 65c per share..... | 40,000 shares |
| Expiring January 10, 1951, at 85c per share..... | 40,000 shares |
| Expiring July 10, 1951, at \$1.25 per share..... | 40,000 shares |
| | <u>120,000 shares</u> |

The Company has served notice of termination of such option but the optionee has advised the Company that it considers the option on 120,000 shares to be still in effect which is denied by the Company.

\$503,269.17

AUDITORS' REPORT TO THE SHAREHOLDERS

We have audited the accounts of Bulldog Yellowknife Gold Mines Limited (No Personal Liability) for the period January 1, 1950, to May 8, 1950, and report that in our opinion the above balance sheet has been drawn up so as to exhibit a true and correct view of the state of the Company's affairs at May 8, 1950, according to the best of our information and the explanations given us and as shown by the books. All our requirements as auditors have been complied with.

Toronto, Canada, May 16, 1950.

CLARKSON, GORDON & CO.,
Chartered Accountants.

STATEMENT OF DEFERRED DEVELOPMENT EXPENSE
For the Period January 1, 1950, to May 8, 1950

| | <i>Balance at December 31, 1949</i> | <i>Additions during period</i> | <i>Balance at May 8, 1950</i> |
|------------------------------|---|--|---------------------------------------|
| HEAD OFFICE EXPENSES: | | | |
| Annual meeting expense..... | \$ 403.50 | | \$ 403.50 |
| Audit fees..... | 250.00 | \$ 350.00 | 600.00 |
| Bank charges..... | 80.26 | 243.88 | 324.14 |
| Directors' expenses..... | 64.00 | 551.54 | 615.54 |
| Executive salaries..... | 16,100.00 | 500.00 | 16,600.00 |
| Legal fees..... | 737.44 | 1,700.00 | 2,437.44 |
| Maps..... | 676.87 | 98.51 | 775.38 |
| Mining license..... | 1,000.00 | 400.00 | 1,400.00 |
| Office administration..... | 4,895.06 | | 4,895.06 |
| Rent..... | 1,950.00 | 600.00 | 2,550.00 |
| Services..... | 745.96 | | 745.96 |
| Stationery..... | 381.44 | 2.00 | 383.44 |
| Telephone and telegraph..... | 1,809.24 | 193.47 | 2,002.71 |
| Transfer fees..... | 619.09 | | 619.09 |
| Travelling expenses..... | | 1,878.24 | 1,878.24 |
| Unemployment insurance..... | 56.70 | | 56.70 |
| Miscellaneous..... | 279.32 | 537.03 | 816.35 |
| | <u>\$ 30,048.88</u> | <u>\$ 7,054.67</u> | <u>\$ 37,103.55</u> |
| PROSPECTING EXPENSES: | | | |
| Air freight and express..... | \$ 33,091.40 | \$ 5,554.00 | \$ 38,645.40 |
| Assays..... | 6,077.96 | | 6,077.96 |
| Consultant's fees..... | | 250.00 | 250.00 |
| Diamond drilling..... | 30,404.46 | | 30,404.46 |
| Engineering services..... | 4,950.00 | | 4,950.00 |
| Gasoline and fuel oil..... | 3,202.47 | 1,037.03 | 4,239.50 |
| Insurance..... | 2,446.20 | 120.63 | 2,566.83 |
| Medical services..... | 449.50 | | 449.50 |
| Recording fees..... | 589.43 | 105.35 | 694.78 |
| Rental—tractor..... | 648.59 | | 648.59 |
| Rental—surface rights..... | 735.00 | | 735.00 |
| Supplies..... | 14,915.89 | 2,184.17 | 17,100.06 |
| Equipment..... | 20,839.06 | | 20,839.06 |
| Travelling expense..... | 11,561.55 | 757.88 | 12,319.43 |
| Trucking..... | | 292.40 | 292.40 |
| Wages..... | 22,804.11 | 573.09 | 23,377.20 |
| Miscellaneous..... | 510.47 | 24.50 | 534.97 |
| | <u>\$153,226.09</u> | <u>\$10,899.05</u> | <u>\$164,125.14</u> |
| TOTAL EXPENSES..... | <u><u>\$183,274.97</u></u> | <u><u>\$17,953.72</u></u> | <u><u>\$201,228.69</u></u> |

OUTSTANDING OPTIONS ON TREASURY SHARES

By agreement made as of the 1st day of April, 1950, Canus Petroleum Corporation Limited (No Personal Liability), a company incorporated under the laws of Ontario and having its head office at Toronto (hereinafter called "Canus"), agreed to purchase 600,000 shares of the capital stock of the Company for \$80,000.00 and secured an option on further 700,000 shares at prices ranging from 20c to 80c per share. The said 600,000 shares have been paid for and have been allotted and issued. None of the said 700,000 shares optioned as aforesaid have been taken up or paid for and Canus has the sole and exclusive option to purchase all or any part of such shares at the prices and within the times and upon the terms as follows:

All or any part of 100,000 shares at 20c per share to be taken up and paid for by August 15, 1950.

All or any part of 200,000 shares at 25c per share to be taken up and paid for by November 15, 1950.

All or any part of 200,000 shares at 35c per share to be taken up and paid for by February 15, 1951.

All or any part of 100,000 shares at 60c per share to be taken up and paid for by May 15, 1951.

If Dunsford Securities Limited, a company incorporated under the laws of Ontario (hereinafter called "Dunsford") does not exercise the option claimed by it to purchase 120,000 shares of the Company, then all or any part of 100,000 shares at 80c per share to be taken up and paid for by August 15, 1951.

By agreement dated January 5, 1948, as amended by agreement dated July 7, 1948, the Company granted to Dunsford the sole and exclusive option to purchase 200,000 shares of its capital stock at prices ranging from 30c to \$1.25 per share. The Company has given due notice terminating the said option to Dunsford as provided for in the said agreement. Dunsford, however, has claimed that regardless of the said notice it still has an option on 120,000 shares as follows:

40,000 shares at 65c per share payable on or before the 10th day of July, 1950;

40,000 shares at 85c per share payable on or before the 10th day of January, 1951; and

40,000 shares at \$1.25 per share payable on or before the 10th day of July, 1951.

The Company has agreed with Canus to do all acts and things which may be expedient or necessary to terminate all rights which Dunsford claims to have under the said agreement as amended between the Company and Dunsford.

PARTICULARS OF SHARES IN ESCROW OR POOL

Out of the 900,000 shares allotted and issued by the Company in part payment for the mining claims acquired in November of 1947 by the Company, 843,750 are held by The Canada Trust Company, Toronto, in escrow subject to release, transfer, hypothecation or other alienation by the Ontario Securities Commission and subject to release by the directors of the Company.

Of the said 843,750 shares, 337,500 shares are held by The Canada Trust Company, Toronto, in escrow subject to instructions that if default occurs in any of the cash instalments payable to J. W. Matthews and Michael Matthews as part consideration for the transfer to the Company of certain of the mineral claims owned by the Company, the said 337,500 shares are to be delivered to said J. W. Matthews and Michael Matthews. As of the date hereof of the \$125,000 payable in instalments, \$30,000 has been paid to J. W. Matthews, leaving a balance of \$70,000 payable to him at the rate of \$5,000 at the end of each and every 6-month period, the next instalment falling due on July 15, 1950; and \$25,000 has been paid to Michael Matthews in full.

Certificates for 300,000 shares have been deposited with The Canada Trust Company, Toronto, certificates for 306,100 shares have been deposited with The Guaranty Trust Company of New York, New York City, and certificates for 62,900 shares have been deposited with Peoples Trust Company of St. Albans, St. Albans, Vermont, in a voluntary pool under instructions that such certificates are to be re-delivered to the owners thereof only after the 15th day of August, 1951, unless in the meantime Canus Petroleum Corporation Limited consents to re-delivery.

LIST OF PROPERTIES

The Company is the recorded holder in good standing of the following mineral claims, all situate in the Yellowknife Mining Division, North West Territories:

- (a) Claims numbered 54713 to 54730 inclusive, known as MAD numbered 1 to 18 inclusive respectively;
- (b) Claims numbered 54334 to 54339 inclusive, known as REP numbered 1 to 6 inclusive respectively and claims numbered 54328 to 54333 inclusive, known as REP numbered 7 to 12 inclusive respectively;
- (c) Claims numbered 54032 to 54037 inclusive, known as JEJA numbered 1 to 6 inclusive respectively;
- (d) Claims numbered 70264 to 70281 inclusive, known as WIN numbered 1 to 18 inclusive respectively;
- (e) Claims numbered 66411 to 66414 inclusive, known as DON numbered 1 to 4 inclusive respectively.

(A further group of claims known as the EVA group, is owned by the Company. The directors of the Company have decided that no assessment work will be done on these claims and such claims will therefore lapse by September of 1950.)

The Company is the owner of a 90% interest in mineral claims numbered S-5428 to S-5435 inclusive, known as FOLD numbered 1 to 8 inclusive respectively, all situate in the Athabaska Mining District in the Province of Saskatchewan. (The legal title in the said claims is vested in George Scott, Secretary-Treasurer of the Company, who holds the said interest in trust for the Company.)

In addition the Company by lease dated the 31st day of October, 1949, leased from His Majesty the King in Right of Canada, certain parcels of land fronting on McLeod Bay, Great Slave Lake, in the North West Territories, containing together about 14 acres more or less, excepting and reserving thereout all mines and minerals for a term of 10 years computed from February 1, 1949, at a yearly rental for the first 5 years of the term of \$362.50 and the next 5 years and for every subsequent 5-year period at such yearly rent as may be fixed by the lessor. (The mineral rights in the said lands so leased are covered by mineral claims numbered 66411 to 66414 inclusive, known as DON numbered 1 to 4 inclusive respectively above referred to.)

EXTRACT FROM LAST ANNUAL REPORT

REPORT OF DIRECTORS

To the Shareholders,
Bulldog Yellowknife Gold Mines Ltd.

The Report of the Directors dated May 9, 1949, and submitted at the last Annual Meeting, contained the following statement: "Your Directors consider the expense and effort of underground development is fully justified."

Financial conditions during the year 1949 made it inadvisable to attempt such a program and, upon investigation, it was found that any deal with an established mining company would have involved terms entirely unsatisfactory to Bulldog. Work at the property, therefore, was limited to that which could be done with the amount of cash available for the purpose and consisted of a magnetometer survey, six drill holes in the sulphide zone south of the "high grade" area, and surface stripping and sampling in the same zone. The results of this work and that done during the previous year were examined by two independent engineers of national repute. Their reports confirmed the opinions of our own technical staff that underground development was not only advisable, but imperative.

Your Directors, recognizing the improvement in the market for gold mining securities, have taken steps which they hope will put into the treasury of the Company sufficient funds to carry out the program recommended. If these hopes are realized, it is the intention to purchase shaft sinking equipment this summer and move it to Thompson Landing on Great Slave Lake where Company's supply depot is located. This equipment will then be transported eighty miles overland to the property by tractor during the coming winter. Shaft sinking should start in the spring of 1951 and the development underground be far enough advanced by that fall to make possible a decision as to the size and type of mill best suited to the treatment of Bulldog ore.

There are no physical difficulties that cannot be surmounted in carrying out this program. It depends almost entirely on the financial situation. Our engineers have, in effect, advised us that a mine of considerable magnitude is indicated on the Company's property—how large, no one can say at this time. We can say, however, that it lies, geologically, in a major gold structure with every evidence of a highly commercial concentration of gold within the more than $2\frac{1}{2}$ miles of that structure covered by claims owned by your Company.

Your Company has retained the "Fold Group" of uranium claims on Lake Athabaska and may do some surface work on that group this summer. The base metal prospect at Indian Mountain Lake has been dropped.

Submitted on behalf of the Board,

Toronto, Ontario, May 10, 1950.

"J. GREGORY SMITH," *President.*

MINING ENGINEER'S REPORT

The Managing Director
Bulldog Yellowknife Gold Mines Limited.

The following report on the development of the Matthews Lake property of Bulldog Yellowknife Gold Mines Limited is herewith submitted for your consideration and approval.

INTRODUCTION

Property

The property consists of thirty-six claims in the MacKay Lake-Courageous Lake area of the North West Territories. It lies one hundred and fifty miles north-east of the town of Yellowknife and eighty miles in a direction slightly west of north of the Company's established base camp on the north shore of the north-east arm of Great Slave Lake.

Transportation and Communication

To date, all equipment and supplies have been moved to the property by plane at a winter haulage price (using D.C. 3 and Ansons) of \$108.00 per ton from Yellowknife. Smaller pontoon-equipped planes have serviced the summer operations at a price of 65 cents per mile.

Late last fall a convenient tractor route was marked out between the property and the base camp at Thomson Landing, a distance of approximately one hundred and ten miles.

It is expected, when transportation facilities have been properly organized, that the cost per ton of freight from Edmonton to the property will be approximately one hundred dollars per ton.

A two-way radio communication service has been established between Thomson Landing and Yellowknife, and it is planned to extend it to the main property.

Local Conditions and Resources

The property lies within the barrens and, with the exception of a few isolated patches of scrub spruce which may be found in the shelter of the higher hills, there is little vegetation other than moss, lichens and scrub birch. Precipitation is moderate, with very little snowfall in the winter or rain in summer. The lakes usually freeze over permanently about the middle of October and remain frozen until the middle of June.

Possibilities of developing Hydro-Electric power within a radius of sixty miles of the property have not yet been investigated. However, from air reconnaissance, one or two sites suggest possibilities. The closest known large undeveloped source lies a distance of one hundred and ten miles to the south-east, near the mouth of the Lockhart River.

SUMMARY OF OPERATIONS

Work Accomplished

Development work on the property began with the completion of the airstrip on Matthews Lake on April 16th, 1948. During the year, 9,731 feet of diamond drilling and a considerable amount of stripping and trenching was done.

MINING ENGINEER'S REPORT (Continued)

Twenty-eight diamond drill holes were drilled across the main ore-bearing zone in the sediments. They were all drilled from east to west into the dip of the formation and are spaced at intervals along a zone length of approximately 2,800 feet. With few exceptions, they are pointed at right angles to the strike of the vein structure.

An additional four holes were put down under a series of mineralized shears which are partially exposed in small lava outcrops located approximately 1,300 feet south of the most southerly drill hole on the main zone.

During the break-up period and immediately after the snow was off the ground, the few original vein exposures were sampled and extended by pick and shovel and with the assistance of the Company bulldozer.

The aggregate length of zone exposed amounted to approximately 800 feet and it was doubtful if further extensions could be economically exposed within the 2,800 feet of length which had been partially explored.

Detailed geological mapping of an area approximately 500 feet wide and 4,500 feet long embracing the main zone outcroppings and the sulphide zone, was completed.

A winter camp consisting of four igloos was completed before the camp was closed on September 18th, 1948. During the latter part of August and the month of September the Thomson Landing supply depot was established on the north shore of Great Slave Lake. One 35,000-gallon oil tank and two smaller (8,750 gals.) tanks were assembled and two log buildings, 16' by 20', and a temporary dock erected. 53,353 gallons of fuel oil, 4,800 gallons of gasoline, including 2,220 gallons of aviation gas and 90 cases of dynamite, were stored at the Landing.

The Company also acquired a lease on six parcels of ground at Thomson Landing having a combined area of 13.7 acres and a frontage of 1,450 feet on the Lake. A lease has also been acquired on approximately 100 acres of timber land situated immediately north of the Landing. This will be a valuable asset to the Company in any future mining operation.

During the period July 18th to September 14th, 1949, six diamond drill holes, aggregating 1,615 feet, were put down under the sulphide shears, to the south of the Matthews vein exposures, and a magnetometer survey was made of the contact area to the north and south of the shear exposures. An intensive prospecting campaign was conducted along the contact zone, which is almost entirely overburdened, and the sulphide shear exposures were thoroughly sampled.

GEOLOGY

General

The property lies astride a regional ore-bearing structure which closely follows the contact between a belt of lavas to the west and a series of "cold" sedimentary beds to the east. The general trend of the formation is a few degrees west of north and its average inclination is between seventy-five and eight degrees to the east.

With the exception of a few irregular-shaped masses of "older" diorite, a few gabbro dykes and sills and the suggested presence of fine-grained acid dykes, there is no evidence of any other intrusive rock types on the property. A very persistent fault or shear roughly follows the contact between the lavas and the sediments. Other parallel shears are in evidence in the sediments at varying intervals for several hundred feet to the east of the contact. Several north-easterly trending faults of slight displacement have been noted and there is fair evidence to support the contention that north-easterly trending "Thrusts" have caused a fair amount of warping and in some cases fracturing of the contact area rocks in a few places.

Economic

DESCRIPTION OF ORE OCCURRENCES.—The "main" or Matthews vein might be described as a single quartz vein within a very pronounced and persistent shear in the sediments in close proximity to the lava contact. There are other parallel, less pronounced, shear zones on the hanging-wall side of the vein and in places minor intersecting shears contribute a few feet of quartz ribs and schist to the main vein zone on the hanging-wall side. The trend of the shear is approximately N-14 deg.-W, and it has an average dip of 75 deg. to the east. The quartz varies in width from six feet to a fraction of an inch, swelling and narrowing very rapidly within short distances to form lenticular bodies. It is almost continuous for the full length of the explored zone, except in a few instances where north-easterly trending thrusts tend to disrupt to some extent its regular trend or where it appears to break up into a series of stringers in the schist. However, in the greater part of its surface exposures, it can be readily followed.

The quartz, as a rule, is dark blue and slightly opaque. In places it appears to have been slightly recrystallized and has a faint, sugary texture and a pronounced bluish sheen. In some portions of the vein the quartz is light grey in color and slightly opaque and variations of both types are common. The quartz on the average contains less than 4% of sulphide mineralization, the predominant sulphide being arsenopyrite. Some pyrrhotite is present. Free gold is usually present finely disseminated in the quartz in clusters or in continuous streaks which in most cases favor the hanging-wall side of the vein.

Mineralized Shears in the lavas

A number of parallel shears have been located by a limited amount of trenching and drilling in the lavas at a point approximately 1,300 feet south of the most southerly drill hole on the Matthews vein. They strike N.-16 deg.-E. and dip to the east at angles varying from 75-85 deg. They would intersect the lava-sedimentary contact on strike at an angle of approximately 34 degrees.

The width of zone in the basic lavas in which the shears are located is approximately two hundred and twenty feet, its easterly limit at this point being one hundred and twenty feet west of the contact. The "E" zone which outcrops for a short distance along the east side of an outcrop appears to be the most persistent shear. Other parallel shears *en echelon* have been intersected in the drill holes. These shears contain quartz veins and lenses of highly silicified and mineralized schist, with and without quartz stringers. Free gold is not only found in the quartz but in the black silicified and highly mineralized wall-rock.

Arsenopyrite appears in fractures in the quartz and usually in the schist as disseminations or almost massive streaks. Pyrrhotite is fairly common and pyrite and chalcopyrite not unusual. Some stringers contain a fair proportion of scheelite, which is associated with the higher grade sections of the Matthews vein to the north.

Results Obtained from Development

FROM SAMPLING OF SURFACE EXPOSURE.—There are five ore shoots indicated in the Matthews vein having an aggregate length of 242.5 feet, an average width of 3.12 feet, and an average grade of 1.79 ounces of gold to the ton.

MINING ENGINEER'S REPORT (Continued)

| Location | Shoot No. | Length | Width | Grade Uncut-oz. | Grade cut-oz. |
|-----------------|-----------|--------|-------|--------------------|------------------|
| 2.5 - 32.5 | 207 | 30.0 | 1.12 | 10.30 | |
| 141.0 - 231.0 | | 90.0 | 0.97 | 0.57 | |
| 231.0 - 303.0 | 204-205 | 72.0 | 2.07 | 1.40 | |
| 303.0 - 378.0 | | 75.0 | 1.04 | 0.57 | |
| 378.0 - 430.0 | | 52.0 | 12.80 | 0.36 | |
| 768.0 - 853.0 | 199-200 | 85.0 | 4.00 | 1.13 | 0.87 |
| 1033.0 - 1058.0 | 197 | 25.5 | 4.61 | 0.93 | |
| 1403.0 - 1433.0 | 194 | 30.0 | 3.84 | 4.14 | 3.40 |

Note: The character and consistency of fine free gold mineralization in quartz, in both surface exposures and drill hole intersections, is such that only two samples could reasonably be treated as erratics in the estimation of ore shoots. These were assays of 21 ounces in shoot No. 194, which was cut to 10 ounces and 8.9 ounces in shoot No. 199-200, which was cut to three ounces.

Distances along the vein in column 1 are measured southward from the plane of D.D.H. No. 9. For the most part, footages not included in column 1 are covered by overburden.

The wide zone of quartz between 378 and 430 shows a very erratic distribution of gold values and I believe that its average grade can only be determined by bulk sampling.

Stripping and trenching in the sulphide zone area exposed the "E" zone continuously for 35 feet and at intervals for an additional 92 feet on strike. The "J" zone, immediately west of "E" was exposed at two places. Close sampling was done on these and the "D" and "K" zones east of "E". The results of all surface sampling done are shown on the 20-scale assay plan of the south zone.

Thus far the "E" zone is the only structure that has shown much continuity of values on the surface, and even in it they show a rather erratic distribution. Following are the results of "E" zone sampling.

Averages are weighted and high assays cut to 1 ounce.

| Length | Oz. Grade | Width |
|----------|-----------|------------|
| 44 feet | 0.468 | 8.01 |
| or | 0.736 | 4.15 |
| 40 feet | | overburden |
| 6 feet | 0.263 | 3.22 |
| 25 feet | | overburden |
| 12 feet | 0.553 | 2.34 |
| 127 feet | 0.642 | 3.47 |
| or | 0.464 | 5.64 |

These figures assume the continuity of values across the unsampled sections under overburden.

FROM DIAMOND DRILLING.—The results obtained from diamond drilling have been tabulated and are appended to this report. The intersections shown in the Matthews vein include those of the main ore-bearing vein or zone and, in some instances, the wall rocks for some distance from the vein. In addition to those tabulated, some assays were obtained from a strong zone of fracturing near the collars of drill holes 13 and 14. There is also a suggestion that some of the parallel and weaker shears might contain an occasional shoot of ore. However, with only three or four exceptions, the bulk of the interesting assay returns have come from samples taken from the main or Matthews vein in the sediments and from the sulphide shears in the lavas to the south.

Main or Matthews Zone—Number of drill holes..... 28
Length of zone partially explored.....2700 feet
Maximum depth explored..... 450 feet

Not including the results obtained in drill holes 11 and 12, which cut an area of much structural disturbance, and holes 17 and 24, located at the north and south ends respectively of the 2,700 feet of partially explored zone, the following averages were calculated from the intersections obtained from the remaining 24 holes:

24 drill holes—Average true width.....2.78 feet
Average grade.....0.41 oz. gold

In the above calculations no assays were cut and where the vein width was less than 30 inches, the average grade was calculated for this width by including the wall rock grade.

Average grade of Main or Matthews vein quartz, which was intersected in 19 drill holes, was calculated to be 0.70 ounces over an average width of 1.90 feet.

Note: See "Analysis of Results" for interpretation of significance of the above.

SULPHIDE SHEAR ZONES IN THE LAVAS.—The following is a tabulation of the drill hole intersections from the sulphide shears that are of ore or near ore grade:

| Drill Hole | Oz. Grade | Core Length (feet) | Vertical Depth |
|---------------|--------------|-----------------------|-------------------|
| 37 | 0.28 | 6.0 | 112 feet |
| | 0.70 | 1.5 | 159 " |
| | 0.55 | 2.7 | 188 " |
| 36 | 0.50 | 3.5 | 83 " |
| 25 | 0.27 | 2.0 | 47 " |
| | 0.33 | 8.0 | 140 " |
| | 0.28 | 3.5 | 168 " |
| | 0.64 | 3.5 | 175 " |
| 33 | 0.61 | 6.2 | 95 " |
| | 0.61 | 3.2 | 131 " |
| | 0.45 | 2.4 | 207 " |
| 34 | 0.27 | 1.6 | 44 " |
| 41 | 0.66 | 2.5 | 15 " |
| | 0.25 | 1.1 | 47 " |
| 35 | 1.33 | 3.3 | 58 " |
| | 0.45 | 3.3 | 141 " |
| 38 | 0.61 | 3.5 | 124 " |
| | 0.49 | 2.0 | 172 " |
| 39 | | | |
| 40 | 0.26 | 1.5 | 43 " |
| | 0.27 | 1.2 | 48 " |
| | 0.28 | 2.5 | 52 " |
| | 0.40 | 1.2 | 111 " |

MINING ENGINEER'S REPORT (Continued)

In addition to the above intersections, every drill hole returned a surprising number of sections that carried low gold values. Many of the intersections undoubtedly represent isolated occurrences with little economic significance. However, some of the intersections undoubtedly represent portions of fairly continuous lenses within the shears.

Some Favorable Features Affecting Operating Costs

- 1. The Matthews vein is readily recognized by its general character and its proximity to the contact.
- 2. The values in the above vein are almost entirely confined to a single quartz vein which can be easily separated from its walls.
- 3. A metallurgical test made on the rejects taken from 150 surface samples from the Matthews vein indicated that 97.92% of the gold could be recovered by direct cyanidation. A test was also made of a 255-lb. sample of material from the surface exposures of the sulphide zone shears. It indicated that a recovery of 98.15% of the gold could be readily obtained.
- 4. The tractor route between the property and Thomson Landing on Great Slave Lake offers comparatively easy access during the long hauling season.

Analysis of Results

A study of the nature of the ore occurrences from surface exposures on the Matthews vein and certain data supplied by drilling suggests that it would not be practical to accept the average grade of the drill hole intersections as calculated as the average grade of ore that might be developed or to assume that the average width multiplied by the length over which the drilling has been done and divided by 12 would represent the tons that would be developed per vertical foot. The main purpose of the calculations was to demonstrate that the ore expectancy on the lower horizons was as good as that suggested in the surface development.

We believe that the ore lenses rake to the north at comparatively steep angles and that their vertical extent is at least several times that of their horizontal length. This belief is confirmed to a fair degree by the limited amount of drilling done to date. It would, therefore, be logical to assume that a much higher average grade of ore would be obtained from drill holes properly directed to cut the downward extension of the ore lenses after the degree of rake had been definitely established.

An estimate or even a guess as to the average grade of ore that might be developed along the length of main vein zone so far partially explored cannot be made with any degree of assurance at the present time. However, it would be reasonable to assume that it would be in excess of 0.65 ounces to the ton. The fairly regular nature of the recurrence of the ore lenses as suggested in the surface exposures and in certain drill intersections would justify the assumption that the presently indicated ore length as outlined by surface trenching would at least be doubled.

The exceptionally favorable results obtained in the sulphide shears, from the limited amount of development so far undertaken, is most encouraging. Sufficient information has been obtained on the "E" zone to permit a preliminary appraisal of its ore potentialities. It has been exposed on surface for 127 feet, so that the ore length assumed by drilling (between holes 33 and 37) is not unreasonable. The drill hole intersections considered to represent the "E" zone are as follows:

| Drill Hole | Oz. Grade | Core Length |
|------------|-----------|-------------|
| 41 | 0.66 | 2.5 feet |
| 33 | 0.61 | 3.2 " |
| 25 | 0.33 | 8.0 " |
| or | 0.52 | 4.0 " |
| 37 | 0.28 | 6.0 " |
| or | 0.42 | 2.2 " |
| 35 | 0.07 | 5.7 " |
| 38 | 0.16 | 1.1 " |

The weighted average of the four "ore" intersections in the "E" zone is 0.555/2.97 feet, or, using the greater width, 0.402 across 4.92 feet. The intersections in holes 33 and 41 are in the same plane and in 25 and 37 are 15 and 140 feet north respectively. The intersections to the south in holes 35 and 38 are both low and probably reflect a northerly plunge, since the intersection in hole 35 is almost directly down-dip from good values on the surface.

This zone is only one of several parallel mineralized shears in which substantial drill hole intersections have been obtained. It can be considered as indicative of the ore potentiality of the sulphide zone area.

The strength and nature of the fracture pattern and its probable relationship to the marked change in the trend of the contact in the immediate area suggests possibilities of developing an appreciable tonnage of ore. It is also highly probable that veins of the Matthews type will be found in the sediments immediately to the east in this area.

Conclusion

The favorable ore indications so far obtained suggest good possibilities of developing a profitable mining operation. The Matthews vein could reasonably be expected to supply 150 tons per vertical foot from the length partially explored to date. The results obtained from the limited amount of work done on the sulphide shears suggest that this area may have a considerably greater ore potential than that of the Matthews vein. The possibility of mining shoots of ore of better-than-ounce grade is a very attractive feature and could be an important factor in grade control.

A mining operation in this area presents no exceptional operating hazards that cannot be overcome by reasonable additions to costs over and above those for a similar operation in the vicinity of Yellowknife.

A program of underground development to substantiate present ore indications is justified.

Recommendations

- 1. I would recommend that a complete mining plant and all necessary supplies and equipment be purchased and transported to the property this coming winter.
- 2. That initial underground development be confined to that portion of the Matthews vein lying between drill holes 9 and 23, a horizontal distance of 2,400 feet.

MINING ENGINEER'S REPORT (Continued)

3. That a 3-compartment vertical shaft be put down to a depth of 350 feet and levels established at 175 feet and 325 feet depths, and from each of these horizons, 2,500 feet of drifting, 600 feet of cross-cutting, 750 feet of raising and 3,000 feet of diamond drilling be done.

The total cost of such a program has been estimated to be approximately \$850,000.00, distributed as follows (prices at assumed points of purchase):

| | | |
|--|--------------|---------------------|
| BUILDINGS AND BUILDING MATERIAL—Outside points | \$ 65,000.00 | |
| EQUIPMENT: | | |
| Surface..... | \$66,000.00 | |
| Underground..... | 42,000.00 | |
| Extras..... | 22,000.00 | |
| | | 130,000.00 |
| SUPPLIES: | | |
| Fuel..... | \$68,000.00 | |
| Underground and surface..... | 74,000.00 | |
| Food, etc..... | 42,000.00 | |
| Spare parts..... | 6,000.00 | |
| | | 190,000.00 |
| FREIGHTING: | | |
| Fuel..... | \$73,000.00 | |
| Mining supplies..... | 25,055.00 | |
| Food, etc..... | 4,800.00 | |
| Equipment..... | 18,450.00 | |
| Buildings..... | 12,000.00 | |
| | | 133,305.00 |
| DIAMOND DRILLING..... | | 18,000.00 |
| PREPARATION, CONSTRUCTION AND INSTALLATION..... | | 30,000.00 |
| OPERATION (payrolls and servicing)..... | | 250,000.00 |
| UNFORESEEN..... | | 33,695.00 |
| | | <u>\$850,000.00</u> |

In the above estimates it is assumed that a considerable proportion of the equipment can be obtained second-hand within the Territories at reasonable prices. It may be necessary to purchase transportation equipment in the event that no organized transport is available. The cost of such equipment would probably be in the neighborhood of \$70,000.00.

(Signed) "W. P. MURDOCH",
Chief Engineer.

WPM/ES, October 31st, 1949.

CERTIFICATE

Re: Bulldog Yellowknife Gold Mines Limited

I, William Perry Murdoch, of the Village of Unionville, in the County of York, Ontario, Consulting Engineer, do hereby certify that:

- (a) My address is Unionville, Ontario, and my occupation is consulting engineer.
- (b) My qualifications are: E.M., Michigan College of Mines, and twenty-five years experience in the practice of my profession.
- (c) I have never held, directly or indirectly, any securities of the Company or an interest in the property or have I been promised any such remuneration.

During the past four years, I have been employed as Chief Engineer by Trans-American Mining Corporation on a four-year contractual basis. During the spring of 1948 this Company obtained an interest in Bulldog Yellowknife property. One of the conditions of my contract stipulated that I should have the right to purchase a certain number of Trans-American shares for each year of service, with the Company, the total amounting to 16,000. These were to be paid for and delivered within thirty days of the expiration of contract. My contract with the Company was terminated on December 31st, 1949.

(d) The accompanying report is based on a personal examination of the property and on a report with accompanying logs and sections of the last six drill-holes, submitted by A. G. Hodgson, resident geologist.

I was personally resident on the property or within a fifty mile radius of it and in constant contact during the period when ninety per cent of the work done to date was being performed. My last trip to the property was in May, 1949.

Practically all of the sampling and detailed mapping of the trenches shown on the assay plans was done by myself. The excellent geological maps and drill-hole logs were compiled by A. G. Hodgson and by Dr. A. P. Beavan, consulting geologist, whose planning and efforts were largely responsible for the encouraging nature of the results obtained to date.

"WILLIAM PERRY MURDOCH",
Consulting Engineer.

Toronto, Ontario, April 5th. 1950.